

The principal speaker of the evening was DR. J. W. TILDEN, San Jose State College, emeritus. His beautifully illustrated talk was entitled "Insects and their Western Habitats."

Coffee and other refreshments were served during a social hour in the entomology rooms following the meeting.—M. S. WASBAUER, *Secretary*.

THREE HUNDRED AND THIRTY-NINTH MEETING

The 339th meeting was held Friday, 16 April 1971, at 7:45 p.m. in the Morrison Auditorium of the California Academy of Sciences, Golden Gate Park, San Francisco, with President Blanc presiding.

Members present (28): R. P. Allen, F. G. Andrews, P. H. Arnaud, Jr., W. Azevedo, F. L. Blanc, G. Brady, T. Briggs, S. L. Clement, J. E. Cronin, D. G. Denning, A. R. Dutton, J. F. Emmel, F. Ennik, W. E. Ferguson, J. R. Gabel, L. Gormley, T. E. Hewton, Jr., R. L. Langston, H. B. Leech, G. A. H. McClelland, A. E. Michelbacher, C. B. Philip, E. S. Ross, O. Shields, R. Stecker, R. W. Thorp, M. S. and J. S. Wasbauer, R. H. Whitsel, S. C. Williams.

Visitors present (21): Madelaine Arnaud, J. Bass, Grace Bass, D. Carroll, C. Crawley, T. W. Davies, Sue Dolcini, Alexandria Ennik, Stephenie Ferguson, Toni Gabel, D. Jolly, W. Rausden, Pam Ringhoff, Ann Sibole, Karen Stecker, R. Stecker, R. Taylor, Ruth Taylor, Joyce Thorp, W. Vaundell, R. L. Wong.

The minutes of the meeting held 19 February 1971 were summarized.

The following names were proposed for membership: David W. Berggren, Jacques Chassain, J. Eric Cronin, Carol D. Crosswhite, Timothy L. Delgman, Dennis R. Engel, Carl Goodpasture, Donald J. Jolly, James D. Marshall, Albert E. Rackett, Keith B. Taylor, Richard J. Taylor, Norman E. Woodley.

Dr. Ferguson announced that Dr. J. W. Tilden, recently emeritus from San Jose State College, had undergone open heart surgery at the Stanford Medical Center last week. Dr. Stecker added that blood donations in Dr. Tilden's name would be gratefully accepted.

Mr. Leech exhibited some cardboard boxes with pinning bottoms suitable for temporary storage of Lepidoptera, etc. Twenty-five of these are available from the Academy at \$0.20 each.

The program chairman, Dr. Stecker, announced the forthcoming picnic and field day is to be held at Del Puerto Canyon, Stanislaus County on Saturday, 15 May. President Blanc had been there earlier today and described the area as one of an abundance of various plants, notably digger pine, *Senecio* and manzanita, with a picnic area and paved roads. Dr. Stecker announced that the speaker for the next regular meeting on 15 October will be Rick Main, who will speak on insect collecting in the Grand Canyon of Mexico.

President Blanc called for introductions. Dr. Wasbauer introduced Miss Pam Ringhoff and Miss Sue Dolcini, both of the California Department of Agriculture. These girls serve the Society well in that they do all of the typing and record keeping for the Secretary and so leave him free to concentrate on other duties.

The following notes were presented:

Oviposition of the California Damsel fly, *Archilestes californica* MacLachlan.—On 25 September 1968, while collecting insects in the stream bed of Alameda Creek in Sunol Valley Regional Park, Alameda County, California, I

observed a pair of *Archilestes californica* MacLachlan in the process of oviposition on the small stems of White Alder, *Alnus rhombifolia*.

The White Alder found along inland foothill and mountain streams in California is a large upright growing tree. The Alder in this observation was a small (about $\frac{1}{2}$ meter in height) immature plant or the leafed sucker stems of a larger tree. The plant grew out from beneath a large rock and hung over a shallow pool in the stream.

Closer observation of this plant showed three and sometimes four pairs of *A. californica*, the males riding tandem with females in oviposition. Almost all the small stems of this miniature Alder were girdled by egg punctures.

The male California Damsel fly seizes the female by the prothorax with the clasping terminal appendages of the abdomen and maintains this posture all through oviposition. The female arches her long abdomen so that the ovipositor rests on the bark of the plant stem. She lays six eggs in each puncture that is made with an incising tool, the terebra of the ovipositor. The punctures are easily recognizable by the reddish puckered scars on the twigs. The flat elongated ovate eggs are inserted beneath the outer bark and into the cambium layer in fan-like fashion three on each side from the puncture. As many as seventy five to one hundred seventy five eggs may be inserted by one female in numerous incisions on the twigs. The eggs lie dormant beneath the bark through the winter. Hatching in spring the young naiads then drop to the water below.

A return trip on 5 October 1968 revealed only one pair of Damsel flies in oviposition on the same plant. The terminal twigs of the branches of the larger alders hanging over Alameda Creek were examined at this time but no indications of scarring by *Archilestes* could be found. The supposition proposed herein is that *Archilestes californica* prefers only the small tender shoots of the immature alder trees for ovipositing in this area.—T. W. DAVIES, *California Academy of Sciences, San Francisco*.

Sound production in *Agrilus pulchellus* Bland (Coleoptera: Buprestidae).—At the American Museum's Southwestern Research Station, 5 miles west of Portal, in Cochise County, Arizona, on 11 September 1966, while inspecting an insect flight trap situated in a small meadow, partly surrounded by *Salix* sp., I sighted a specimen of a beautifully colored *Agrilus* resting on one of the inside panels of the flight trap. The specimen was collected by hand and held between my thumb and index finger. To my surprise I could discern stridulatory sounds. The specimen was held so that the elytra and abdomen were tightly held, with the head of the beetle free. The stridulatory sounds were produced at the time the *Agrilus* rotated its head from side to side in its prothoracic socket. The specimen was subsequently determined as a female of *Agrilus pulchellus* Bland.

Carlson and Knight (1969, *Contrib. Amer. Entomol. Inst.*, 4(3): 69-71) discuss stridulation in four sympatric species of *Agrilus* in Michigan. The method of stridulation is apparently unique to *Agrilus*. The sounds produced are considered stress sounds, are identical in both sexes, and are not species specific. With their *Agrilus* species the stridulations could not be heard without amplification or by placing the insect next to the ear. In the case of *Agrilus pulchellus* the stridulatory sounds were audible at a distance of at least 15 inches.—PAUL H. ARNAUD, JR., *California Academy of Sciences, San Francisco*.

The principal speaker of the evening was to have been Mr. Michael R. Gardner, but Mr. Gardner was taken ill the day of the meeting and DR. G. A. H. McCLELLAND